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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,715	03/17/2004	Haruko Kawakami	016907-1624	1868
22428 7590 07/26/2007 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER CRUZ, IRIANA	
			ART UNIT 2609	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/801,715	Applicant(s) KAWAKAMI ET AL.	
	Examiner Iriana Cruz	Art Unit 2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. IDS statements received on March 17, 2004 have been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-2, 14 and 16** are rejected under 35 U.S.C. 102(b) as being anticipated by Kojima et al. (US Publication number 2005/0195424 A1), hereinafter Kojima.

As per **Claim 1** Kojima discloses an image processing apparatus comprising: input means for inputting an image signal; image processing means for subjecting the image signal input from the input means to an image process comprising a plurality of processes (Fig.8); memory means for use in the image process in the image processing means (Fig. 1 and Fig.8, Depending the type of image detected a quantity of memory is needed to perform the image processing.); designation means for designating a process condition for the image signal input by the input means (paragraph 99); and control means for effecting a control to allocate a memory capacity, which is usable in the memory means, to the individual processes in the image process in accordance with the process condition designated by the designation means (paragraph 100).

As per **Claim 2** Kojima discloses an image processing apparatus, wherein the process condition designated by the designation means comprises a character/photo

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mode, a photo mode with a stress on reproducibility of a photo, a character mode with a stress on reproducibility of a character, and a map mode (Paragraphs 100 and 102).

As per **Claim 14** Kojima discloses an image processing apparatus comprising: input means for inputting an image signal; image processing means for subjecting the image signal input from the input means to an image process comprising a plurality of processes (Fig.8); memory means for use in the image process in the image processing means (Fig.8 and Fig.9); determination means for determining attributes of the image signal input from the input means (paragraphs 99 and 100); designation means for designating a process condition for the image signal input by the input means (paragraphs 99 and 100); and control means for effecting a control to allocate a memory capacity, which is usable in the memory means, to the individual processes in the image process in accordance with the process condition designated by the designation means or a determination result of the determination means (Paragraph 100).

As per **Claim 16** Kojima discloses an image processing method comprising: inputting an image signal (Fig.8); subjecting the input image signal to an image process comprising a plurality of processes with use of memory means (Fig.8 and Fig.9, Depending the type of image detected a quantity of memory is needed to perform the image processing.); designating a process condition for the input image signal; and allocating a memory capacity, which is usable in the memory means, to the individual processes in the image process in accordance with the designated process condition (Paragraph 100).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima, in view of Hirota et al. (US Patent number 6417932 B1), hereinafter Hirota.

In regards to **Claim 3**, Kojima discloses an image processing apparatus with designation means for designating a process condition for the image signal input by the input means (paragraph 99). Kojima does not disclose the designation means that comprises an auto mode in where the input image signal is a color signal or monochromatic signal each designating a color mode executing a color image processing or a monochromatic mode executing a monochromatic image processing.

However Hirota discloses an image processor that discriminates the mode of the image signal as being color or monochromatic mode for processing means (Col.13 pp. 34-38).

Therefore, it would have been obvious to one of ordinary skill in the art at the time when the invention was made to combine Kojima's image processing apparatus with designation means to designate a process condition depending on the image signal input with Hirota's image mode discrimination system.

The motivation for this combination would be to have an image processing apparatus that automatically can determine what type of image signal is the system receiving and depending if it's a color mode or a monochromatic mode process it with the adequate procedures. This would eliminate the user having to choose what type of image is going to be analyzed and help the processing of the image to be faster.

6. **Claim 4** is rejected under 35 U.S.C. 103(a) as being obvious over Kojima in view of Yamamoto (US Publication number 20040212838 A1), hereinafter Yamamoto.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

In regards of **Claim 4**, Kojima discloses an image processing apparatus comprising: input means for inputting an image signal; image processing means for subjecting the image signal input from the input means to an image process comprising a plurality of processes; memory means for use in the image process in the image processing means; designation means for designating a process condition for the image signal input by the input means; and control means for effecting a control to allocate a memory capacity, which is usable in the memory means, to the individual processes in the image process in accordance with the process condition designated by the designation means.

Kojima fail to disclose a plurality of processes comprising a color conversion process, a discrimination process a filter process and a tone process.

However Yamamoto discloses an image processing apparatus that includes a section that after a discrimination process executes on the discriminated signal a color conversion process, a filter process, and tone process (Paragraphs 12 and 13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time when the invention was made to combine Kojima's image processing apparatus with Yamamoto's discriminating process, conversion process, filter process, and tone process as the processing for each image signal imputed to the system to facilitate the processing of the image signal all at once, by having an image processing apparatus that designates the type of image is going to be analyze and with that information then

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prepare for the processing of that specific signal with just the necessary processes for that signal.

7. **Claims 5, 7-11, 13, 15 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima in view of Suzuki et al. (US Patent number 6,473,204 B1), hereinafter Suzuki.

In regards to **Claims 5, 15 and 17**, Kojima disclose an image processing apparatus with processing means specifying color conversion process, a discrimination process, a filter process, and a tone process.

Kojima fails to disclose the control means to allocate a processing time to the individual process in the image process in accordance with the process condition designated by the designation means.

However, Suzuki teaches an image processor apparatus that has a judgment means for judging based on input image information whether the input image is an image or character information, with a processing means for processing the input information in accordance with the judgment result. If each process is going to be different depending the signal, each different process is going to take different amounts of time of execution, this means that designating different processes will include designating different processing times for every process being executed (Col.27 pp.64-67 and Col.28 pp.1-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time when the invention was made to combine Kojima's image processing apparatus with Suzuki's processing means to allocate different processing times in order to

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simplify the process and prevent errors by giving the appropriate time needed for each different process.

In regard of **Claims 8-9**, It would have been obvious to one having ordinary skill in the art at the time the invention after combining Kojima and Suzuki, to say that a photo mode its going to need more memory capacity and/or processing time for color conversion than for the other process because a photo image contains a combination of colors that are more data to process and to say less or no processing time and memory capacity are needed for the discrimination process on a photo mode in compared to the other processes because in a photo image a resolution and a signal bit number of characteristic signals are decrease.

In regards of **Claim 10**, It would have been obvious to one having ordinary skill in the art at the time the invention was made after combining Kojima and Suzuki, to state that a character mode image is going to need more memory and processing time for discrimination process in compare with other process. In a character mode more characters like words are going to be found and the discrimination process is going to be more complex than the other processes like the color processing which is more complex in photo mode.

In regards of **Claim 11**, It would have been obvious to one having ordinary skill in the art at the time the invention was made after combining Kojima and Suzuki, to state that a map mode image signal is going to need more memory and/or processing time for filter processing in compare with the other processes because a the map mode is

where thin characters and low density characters can be readily judged to be character edges where the quality of the picture quality is suppressed.

As per **Claims 7 and 13**, it is obvious that when the processing time is restricted or a new process is provided the image processing apparatus control means will allocate a new processing time for each like mentioned above for **Claims 5, 15 and 17**, 8. **Claims 6 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima in view of Hirai et al. (US Publication number 2004/0196471 A1), hereinafter Hirai.

In regards of **Claims 6 and 12** Kojima teaches an image processing apparatus with processing means to execute different processes, each one with different processing times and memory means for use in the image process in the image processing means.

Kojima fails to disclose the image processing apparatus wherein the case a processing time is restricted, the control means allocates a memory capacity to the individual processes in the image process in accordance with the process condition designated by the designation means.

However, Hirai teaches a control unit that allocates a memory area to each process and manages the allocated memory (Paragraph 41).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine an image processing apparatus taught by Kojima with a control unit that allocates memory for each process like the one Hirai teaches, in order to make shorter processing times and better usage of the memory available.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Iriana Cruz whose telephone number is (571) 270-3246. The examiner can normally be reached on Monday-friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on (571) 270-1455. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alexander Eisen
SPE
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July 20, 2007